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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,784	05/09/2007	Masahiro Takahashi	Q95659	1440

23373 7590 05/27/2009

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EXAMINER	
KOSLOW, CAROL M	

ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
05/27/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,784	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	C. Melissa Koslow	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 May 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/26/06,6/23/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The information disclosure statement filed 23 June 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

The references cited in the information disclosure statement filed 23 June 2006 were resubmitted in the information disclosure statement filed 26 September 2006 and have been considered. The Japanese language references cited in the information disclosure statement filed 26 September 2006 have been considered with respect to the provided English abstracts.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 2004/063117 in view of JP 06-290926.

U.S. patent 7,481,946 is the national stage application for WO 2004/063117 and thus is the translation for WO 2004/063117.

WO 2004/063117 teaches, as shown by U.S. patent 7,481,946, a sintered Mn-Zn ferrite comprising 62-68 mol% Fe_2O_3, 12-20 mol% ZnO and the balance being MnO. WO 2004/063117 teaches forming this material by adding a binder to the ferrite powder, having a specific surface area of 2700-5000 m^2/kg, molding the mixture and sintering the molded mixture where the sintering process includes heating to remove the binder (temperature increasing process) and

then holding the temperature so as to sinter the molded mixture. The oxygen concentration during the whole sintering process is preferable 0.5 vol% or less. The taught sintered ferrite has a volume resistivity of 0.13 Ω●m or more (col. 9, lines 12-13) and a minimum core loss temperature is between 80-120°C (col. 10, lines 10-12). The sintered ferrite can also contain 0.01-0.025 wt% SiO_2 and 0.13-0.25 wt% $CaCO_3$ (col. 9, lines 4-5). The taught sintered ferrite has a relative density that is 95% or more, which corresponds to a density of 4.845 g/cm^3 or more. The reference teaches that the sintered ferrite can be used as cores in transformers and choke coils, which are electronic parts comprising a winding and a core made of the sintered ferrite. The taught calcium content, volume resistivity, minimum core loss temperature and density all fall with the claimed ranges. The ferrite composition, the amount of silica and the oxygen concentration taught by WO 2004/063117 all overlap the claimed ranges. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); *In re Fields* 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). Also see MPEP 2144.05. WO 2004/063117 does not teach the claimed binder amount, the ratio of Fe^{2+} and the spinelization ratio of the ferrite powder.

With respect to the spinelization ratio, WO 2004/063117 teaches calcining oxides of Mn, Zn and Fe in nitrogen at 800-1000°C, which is the process used by applicants. Applicants teach that this process gives a spinelization ratio range that overlap claimed range. Thus one of ordinary skill in the art would expect that the taught ferrite powder to have a spinelization ratio range that overlaps the claimed ranges, absent any showing to the contrary. With respect to the amount of binder, JP 06-290926 indicates that the conventional amount of binder known to be

used to produce Mn-Zn sintered ferrites at the time of invention is about 1 wt%, which falls within the claimed range. Thus one of ordinary skill in the art would have found it obvious that the amount of binder added in the process of WO 2004/063117 should be about 1 wt%, since that appears to be conventional amount of binder used to produce sintered Mn-Zn ferrites. Since the composition falls within and overlaps that claimed, the process conditions fall within and overlap that claimed and the properties fall within those claimed; one of ordinary skill in the art would expect that the taught sintered ferrite would have a Fe^{2+} ratio that at least overlaps the claimed range, absent any showing to the contrary. The references suggest the claimed sintered ferrite, electronic part and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Koslow whose telephone number is (571) 272-1371. The examiner can normally be reached on Monday-Friday from 8:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached at (571) 272-1233.

The fax number for all official communications is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/cmk/
May 27, 2009

/C. Melissa Koslow/
Primary Examiner
Art Unit 1793